

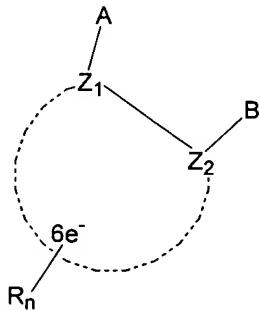
AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 – 102. (canceled)

103. (currently amended) A method of increasing the vigor and/or the yield of an agronomic plant comprising treating the plant or its propagation material with a composition which comprises an effective amount of a fungicide having the formula



wherein Z₁ and Z₂ are C or N and are part of an aromatic ring selected from benzene, pyridine, thiophene, furan, pyrrole, pyrazole, thiazole, benzothiophene and isothiazole;

A is selected from --C(X)-amine, --C(O)—SR₃, --NH--C(X)R₄, and --C(=NR₃)--XR₇;

B is --W_m--Q(R₂)₃ or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or R₄;

Q is C, Si, Ge, or Sn;

W is --C(R₃)_pH_(2-p)--; or when Q is C, W is selected from --C(R₃)_pH_(2-p)--, --N(R₃)_mH_(1-m)--, --S(O)_p--, and --O--;

X is O or S;

n is 0, 1, 2, or 3;

m is 0 or 1;

p is 0, 1, or 2;

each R is independently selected from

a) halo, formyl, cyano, amino, nitro, thiocyanato, isothiocyanato, trimethylsilyl, and hydroxy;

b) C₁-C₄ alkyl, alkenyl, alkynyl, C₃-C₆ cycloalkyl, and cycloalkenyl, each optionally substituted with halo, hydroxy, thio, amino, nitro, cyano, formyl, phenyl, C₁-C₄ alkoxy, alkylcarbonyl, alkylthio, alkylamino, dialkylamino, alkoxy carbonyl, (alkylthio)carbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfinyl, or alkylsulfonyl;

c) phenyl, furyl, thienyl, pyrrolyl, each optionally substituted with halo, formyl, cyano, amino, nitro, C₁-C₄ alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylamino, dialkylamino, haloalkyl, and haloalkenyl;

d) C₁-C₄ alkoxy, alkenoxy, alkynoxy, C₃-C₆ cycloalkyloxy, cycloalkenyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, dialkylamino, alkylcarbonylamino, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylcarbonyl, alkylcarbonyloxy, alkoxy carbonyl, (alkylthio)carbonyl, phenylcarbonylamino, phenylamino, each optionally substituted with halo;

wherein two R groups may be combined to form a fused ring;

each R₂ is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R₄ or halogen; and wherein, when Q is C, R₂ may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino;

wherein two R₂ groups may be combined to form a cyclo group with Q;

R₃ is C₁-C₄ alkyl;

R₄ is C₁-C₄ alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino;

R₇ is C₁-C₄ alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or R₄; or an agronomic salt thereof, wherein the fungicide which has no significant activity against fungal plant pathogens for such agronomic plant, wherein the plant or its propagation material possesses a transgenic event providing the plant with resistance to a herbicide and the treatment comprises foliar application of said herbicide.

104. (previously presented) The method according to claim 103, wherein the herbicide resistance is selected from the group consisting of resistance to glyphosate, glufosinate, imidazolinone herbicides, and sulfonylurea herbicides.

105. (canceled)

106. (previously presented) The method according to claim 103, wherein the fungicide is 4,5-dimethyl-N-2-propenyl-2-(trimethylsilyl)-3-thiophenecarboxamide.

107. (canceled)

108. (currently amended) The method according to claim 103 ~~claim 105~~, wherein the plant or its propagation material possesses a transgenic event providing the plant with resistance to a herbicide selected from the group consisting of glyphosate, glufosinate, imidazolinone herbicides, and sulfonylurea herbicides, and wherein the treatment comprises treating the seed of the plant with an inoculant selected from the group consisting of *Azospirillum spp.*, *Rhizobium spp.*, *Bradyrhizobium spp.*, a mixture of *Rhizobium spp.* and *Bradyrhizobium spp.*, and a mixture of either *Rhizobium spp.*, or *Bradyrhizobium spp.* with any other microorganisms, and further includes foliar treatment of the plant with the fungicide, and foliar application of said herbicide.

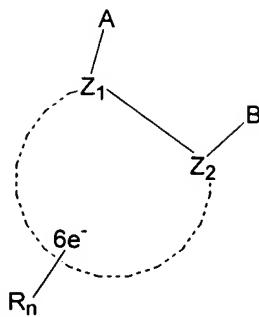
109. (previously presented) The method according to claim 103, wherein the step of treating the plant or its propagation material comprises applying the fungicide to the foliage of the plant in combination with said herbicide.

110. (previously presented) The method according to claim 109, wherein the herbicide is glyphosate.

111. (canceled)

112. (previously presented) The method according to claim 109, wherein the fungicide is 4,5-dimethyl-N-2-propenyl-2-(trimethylsilyl)-3-thiophenecarboxamide.

113. (currently amended) A method of increasing the vigor and/or the yield of an agronomic plant except for wheat comprising treating an agronomic plant or its propagation material except for wheat with a composition comprising an effective amount of an active agent having the formula



wherein Z_1 and Z_2 are C or N and are part of an aromatic ring selected from benzene, pyridine, thiophene, furan, pyrrole, pyrazole, thiazole, benzothiophene and isothiazole;

A is selected from --C(X)-amine, --C(O)—SR₃, --NH—C(X)R₄, and --C(=NR₃)--XR₇;

B is --W_m--Q(R₂)₃ or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or R₄;

Q is C, Si, Ge, or Sn;

W is --C(R₃)_pH_(2-p)--; or when Q is C, W is selected from --C(R₃)_pH_(2-p)--, --N(R₃)_mH_(1-m)--, --S(O)_p--, and --O--;

X is O or S;

n is 0, 1, 2, or 3;

m is 0 or 1;

p is 0, 1, or 2;

each R is independently selected from

a) halo, formyl, cyano, amino, nitro, thiocyanato, isothiocyanato, trimethylsilyl, and hydroxy;

b) C₁-C₄ alkyl, alkenyl, alkynyl, C₃-C₆ cycloalkyl, and cycloalkenyl, each optionally substituted with halo, hydroxy, thio, amino, nitro, cyano, formyl, phenyl, C₁-C₄ alkoxy, alkylcarbonyl, alkylthio, alkylamino, dialkylamino, alkoxy carbonyl, (alkylthio)carbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfinyl, or alkylsulfonyl;

c) phenyl, furyl, thienyl, pyrrolyl, each optionally substituted with halo, formyl, cyano, amino, nitro, C₁-C₄ alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylamino, dialkylamino, haloalkyl, and haloalkenyl;

d) C₁-C₄ alkoxy, alkenoxy, alkynoxy, C₃-C₆ cycloalkyloxy, cycloalkenyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, dialkylamino, alkylcarbonylamino, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylcarbonyl, alkylcarbonyloxy, alkoxycarbonyl, (alkylthio)carbonyl, phenylcarbonylamino, phenylamino, each optionally substituted with halo;

wherein two R groups may be combined to form a fused ring;
each R₂ is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R₄ or halogen; and wherein, when Q is C,
R₂ may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino;
wherein two R₂ groups may be combined to form a cyclo group with Q;

R₃ is C₁-C₄ alkyl; and

R₄ is C₁-C₄ alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino;

R₇ is C₁-C₄ alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or R₄;
or an agronomic salt thereof,

wherein the active agent that has activity against *Gaeumannomyces graminis*, wherein the plant or its propagation material possesses a transgenic event providing the plant with resistance to a herbicide and the treatment comprises foliar application of said herbicide.

114. (previously presented) The method according to claim 113, wherein the *Gaeumannomyces graminis* is of the variety *tritici*.

115. (canceled)

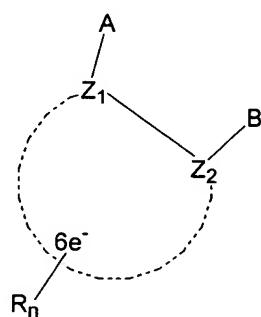
116. (previously presented) The method according to claim 113, wherein the active agent is 4,5-dimethyl-N-2-propenyl-2-(trimethylsilyl)-3-thiophenecarboxamide.

117. (previously presented) The method according to claim 113, where the treatment of the plant or its propagation material comprises treatment of a seed with an inoculant comprising *Azospirillum spp.*, or *Rhizobium spp.*, or *Bradyrhizobium spp.*, or a mixture of *Rhizobium spp.* and *Bradyrhizobium spp.*, or a mixture of either *Rhizobium spp.*, or *Bradyrhizobium spp.* with any other microorganisms.

118. (previously presented) The method according to claim 113, wherein the herbicide is selected from the group consisting of glyphosate, glufosinate, imidazolinone herbicides, and sulfonylurea herbicides.

119. (canceled)

120. (currently amended) A method of increasing the vigor and/or the yield of an agronomic plant except for wheat comprising treating an agronomic plant or its propagation material except for wheat with a composition comprising an effective amount of an active agent having the formula



wherein Z₁ and Z₂ are C or N and are part of an aromatic ring selected from benzene, pyridine, thiophene, furan, pyrrole, pyrazole, thiazole, benzothiophene and isothiazole;

A is selected from --C(X)-amine, --C(O)—SR₃, --NH—C(X)R₄, and --C(=NR₃)--XR_{7-i}:

B is --W_m--Q(R₂)₃ or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or R₄:

Q is C, Si, Ge, or Sn;

W is --C(R₃)_pH_(2-p)--; or when Q is C, W is selected from --C(R₃)_pH_(2-p)--, --N(R₃)_mH_(1-m)--, --S(O)_p--, and --O--;

X is O or S;

n is 0, 1, 2, or 3;

m is 0 or 1;

p is 0, 1, or 2;

each R is independently selected from

a) halo, formyl, cyano, amino, nitro, thiocyanato, isothiocyanato, trimethylsilyl, and hydroxy;

b) C₁-C₄ alkyl, alkenyl, alkynyl, C₃-C₆ cycloalkyl, and cycloalkenyl, each optionally substituted with halo, hydroxy, thio, amino, nitro, cyano, formyl, phenyl, C₁-C₄ alkoxy, alkylcarbonyl, alkylthio, alkylamino, dialkylamino, alkoxycarbonyl, (alkylthio)carbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfinyl, or alkylsulfonyl;

c) phenyl, furyl, thienyl, pyrrolyl, each optionally substituted with halo, formyl, cyano, amino, nitro, C₁-C₄ alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylamino, dialkylamino, haloalkyl, and haloalkenyl;

d) C₁-C₄ alkoxy, alkenoxy, alkynoxy, C₃-C₆ cycloalkyloxy, cycloalkenyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, dialkylamino, alkylcarbonylamino, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylcarbonyl, alkylcarbonyloxy, alkoxycarbonyl, (alkylthio)carbonyl, phenylcarbonylamino, phenylamino, each optionally substituted with halo;

wherein two R groups may be combined to form a fused ring;
each R₂ is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R₄ or halogen; and wherein, when Q is C,
R₂ may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino;
wherein two R₂ groups may be combined to form a cyclo group with Q;

R₃ is C₁-C₄ alkyl; and

R₄ is C₁-C₄ alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino;

R₇ is C₁-C₄ alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or R₄;
or an agronomic salt thereof.

wherein the active agent that has activity against Gaeumannomyces graminis,
and treating the seed of the plant with an inoculant selected from the group consisting of *Azospirillum spp.*, *Rhizobium spp.*, *Bradyrhizobium spp.*, a mixture of *Rhizobium spp.* and *Bradyrhizobium spp.*, and a mixture of either *Rhizobium spp.*, or *Bradyrhizobium spp.* with any other microorganisms, where the plant or its propagation material has a transgenic event that provides resistance to glyphosate and the treatment further includes foliar treatment of the plant with glyphosate.

122. (previously presented) The method according to claim 120, wherein the active agent is 4,5-dimethyl-N-2-propenyl-2-(trimethylsilyl)-3-thiophenecarboxamide.

123 - 133. (canceled)

134. (currently amended) The method according to claim 103 ~~claim 105~~, wherein

Z_1 and Z_2 are C and are part of an aromatic ring which is thiophene;

A is selected from --C(X)-amine, --C(O)—SR₃, --NH--C(X)R₄, and --C(=NR₃)--XR₇;

B is --W_m--Q(R₂)₃ or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or R₄;

Q is C, Si, Ge, or Sn;

W is --C(R₃)_pH_(2-p)--; or when Q is C, W is selected from --C(R₃)_pH_(2-p)--, --N(R₃)_mH_(1-m)--, --S(O)_p--, and --O--;

X is O or S;

n is 0, 1, 2, or 3;

m is 0 or 1;

p is 0, 1, or 2;

each R is independently selected from

a) halo, formyl, cyano, amino, nitro, thiocyanato, isothiocyanato, trimethylsilyl, and hydroxy;

b) C₁-C₄ alkyl, alkenyl, alkynyl, C₃-C₆ cycloalkyl, and cycloalkenyl, each optionally substituted with halo, hydroxy, thio, amino, nitro, cyano, formyl, phenyl, C₁-C₄ alkoxy, alkylcarbonyl, alkylthio, alkylamino, dialkylamino, alkoxycarbonyl, (alkylthio)carbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfinyl, or alkylsulfonyl;

c) phenyl, furyl, thienyl, pyrrolyl, each optionally substituted with halo, formyl, cyano, amino, nitro, C₁-C₄ alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylamino, dialkylamino, haloalkyl, and haloalkenyl;

d) C₁-C₄ alkoxy, alenoxy, alkynoxy, C₃-C₆ cycloalkyloxy, cycloalkenyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, dialkylamino, alkylcarbonylamino, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylcarbonyl,

alkylcarbonyloxy, alkoxycarbonyl, (alkylthio)carbonyl, phenylcarbonylamino, phenylamino, each optionally substituted with halo;

each R₂ is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R₄ or halogen; and wherein, when Q is C, R₂ may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino, and further when Q is C, R₂ may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino; and further when Q is C, then two R₂ groups may be combined to form a cycloalkyl group with Q;

R₃ is C₁-C₄ alkyl;

R₄ is C₁-C₄ alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino; R₇ is C₁-C₄ alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or R₄; or an agronomic salt thereof.

135. (currently amended) The method according to claim 103 claim 105, wherein

Z₁ and Z₂ are C and are part of an aromatic ring which is thiophene;

A is selected from --C(X)-amine, wherein the amine is substituted with a first and a second amine substituent or with an alkylaminocarbonyl and a hydrogen, --C(O)--SR₃, --NH--C(X)R₄, and --C(=NR₃)-XR₇;

the first amine substituent is selected from the group consisting of C₁ - C₁₀ straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof optionally substituted with one or more halogen, hydroxy, alkoxy, alkylthio, nitrile, alkylsulfonate, haloalkylsulfonate, phenyl, C₃ - C₆ cycloalkyl and C₅ - C₆ cycloalkylkenyl; phenyl optionally substituted with one or more C₁ - C₄ straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof, cycloalkyl, cycloalkenyl, haloalkyl, alkoxy and nitro; C₃ - C₆ cycloalkyl, C₅ - C₆ cycloalkenyl, alkoxy, alkenoxy, alkynoxy, dialkylamino, and alkylthio;

and the second amine substituent is selected from the group consisting of hydrogen; C₁ - C₆ straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof optionally substituted with one or more halogen, hydroxy, alkylcarbonyl, haloalkylcarbonyl, alkoxycarbonyl, and dialkylphosphonyl;

B is $--W_m--Q(R_2)_3$ or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or R_4 ;

Q is C, Si, Ge, or Sn;

W is $--C(R_3)_p H_{(2-p)}$; or when Q is C, W is selected from $--C(R_3)_p H_{(2-p)}$, $--N(R_3)_m H_{(1-m)}$, $--S(O)_p$, and $--O--$;

X is O or S;

n is 2;

m is 0 or 1;

p is 0, 1, or 2;

wherein two R groups are combined to form a nonheterocyclic ring fused with the thiophene ring, which is not a benzothiophene other than a tetrahydrobenzothiophene, said two R groups being selected from the group consisting of $C_1 - C_4$ alkyl, alkenyl, $C_3 - C_6$ cycloalkyl and cycloalkenyl, each optionally substituted with hydroxy, thio, phenyl, $C_1 - C_4$ alkoxy, alkylthio, alkylsulfinyl, or alkylsulfonyl;

each R_2 is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R_4 or halogen; and wherein when Q is C, R_2 may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino; and further when Q is C, then two R_2 groups may be combined to form a cycloalkyl group with Q;

R_3 is C_1-C_4 alkyl;

R_4 is C_1-C_4 alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino; and

R_7 is C_1-C_4 alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or R_4 ; or an agronomic salt thereof

136. (currently amended) The method according to claim 103 ~~claim 105~~,
wherein

Z_1 and Z_2 are C and are part of an aromatic ring which is thiophene;

A is $--C(X)$ -amine wherein the amine is an N-bonded heterocyclic compound chosen from the group consisting of morpholine, piperazine, piperidine, and pyrrolidine, each optionally substituted with $C_3 - C_6$ alkyl groups;

B is $--W_m--Q(R_2)_3$ or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or R_4 ;

Q is C or Si;

W is $\text{--C}(\text{R}_3)_p \text{H}_{(2-p)}$ --; or when Q is C, W is selected from $\text{--C}(\text{R}_3)_p \text{H}_{(2-p)}$ --, $\text{--N}(\text{R}_3)_m \text{H}_{(1-m)}$ --, $\text{--S}(\text{O})_p$ --, and --O --;

X is O;

n is 2;

m is 0 or 1;

p is 0, 1, or 2;

wherein the two R groups are alkenyl groups and are combined to form a fused ring with the thiophene ring with is benzothiophene; wherein the alkenyl groups are optionally substituted with halo, hydroxy, thio, amino, nitro, cyano, formyl, phenyl, $\text{C}_2 - \text{C}_4$ alkoxy, alkylcarbonyl, alkylthio, alkylamino, dialkylamino, alkoxy carbonyl, (alkylthio)carbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfinyl, or alkylsulfonyl;

each R_2 is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, and phenyl, each optionally substituted with R_4 or halogen; and wherein when Q is C, R_2 may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino; or wherein two R_2 groups may be combined to form a cyclo group with Q;

R_3 is $\text{C}_1 - \text{C}_4$ alkyl; and

R_4 is $\text{C}_1 - \text{C}_4$ alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino;

or an agronomic salt thereof

137. (currently amended) The method according to claim 103 claim 105, wherein Z_1 and Z_2 are C and are part of a thiophene ring.

138. (previously presented) The method according to claim 137, wherein A is $-\text{C}(\text{O})\text{-amine}$, wherein the amino radical is substituted with one or two groups selected from hydrogen; hydroxy; alkyl, alkenyl, and alkynyl, which may be straight or branched chain or cyclic; alkoxyalkyl; haloalkyl; hydroxyalkyl; alkylthio; alkylthioalkyl; alkylcarbonyl; alkoxy carbonyl; aminocarbonyl; alkylaminocarbonyl; cyanoalkyl; mono- or dialkylamino; phenyl, phenylalkyl or phenylalkenyl, each optionally substituted with one or more $\text{C}_1 - \text{C}_4$ alkyl, alkoxy, haloalkyl, $\text{C}_3 - \text{C}_6$ cycloalkyl, halo, or nitro groups; and $\text{C}_1 - \text{C}_4$ alkyl or alkenyl substituted with pyrimidinyl, thienyl, or furanyl; and wherein the amino radical may be a N-bonded heterocycle selected from morpholine, piperazine,

piperidine, pyrrole, pyrrolidine, imidazole, and triazoles, each optionally substituted with C₁ - C₆ alkyl groups.

139. (previously presented) The method according to claim 138, wherein in -W_m-, m is 0.

140. (previously presented) The method according to claim 139, wherein Q is Si.

141. (previously presented) The method according to claim 140, wherein each R₂ is C₁ - C₄ alkyl or haloalkyl.

142. (previously presented) The method according to claim 141, wherein each R₂ is methyl.

143. (previously presented) The method according to claim 142, wherein A is alkylaminocarbonyl or dialkylaminocarbonyl.

144. (currently amended) The method according to claim 103 claim 105, wherein

Z₁ and Z₂ are C and are part of an aromatic ring which is benzothiophene; and A is selected from --C(X)-amine wherein the amine is an unsubstituted, monosubstituted or disubstituted nonheterocyclic amino radical, --C(O)—SR₃, --NH--C(X)R₄, and --C(=NR₃)--XR₇;

B is --W_m --Q(R₂)₃ or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or R₄;

Q is C, Si, Ge, or Sn;

W is --C(R₃)_p H_(2-p)--; or when Q is C, W is selected from --C(R₃)_p H_(2-p)--, --N(R₃)_m H_(1-m)--, --S(O)_p--, and --O--;

X is O or S;

n is 0, 1, 2, or 3;

m is 0 or 1;

p is 0, 1, or 2;

each R is independently selected from

a) halo, formyl, cyano, amino, nitro, thiocyanato, isothiocyanato, trimethylsilyl, and hydroxy;

b) C₁-C₄ alkyl, alkenyl, alkynyl, C₃-C₆ cycloalkyl, and cycloalkenyl, each optionally substituted with halo, hydroxy, thio, amino, nitro, cyano, formyl, phenyl, C₁-C₄ alkoxy, alkylcarbonyl, alkylthio, alkylamino, dialkylamino, alkoxycarbonyl, (alkylthio)carbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfinyl, or alkylsulfonyl;

c) phenyl, furyl, thienyl, pyrrolyl, each optionally substituted with halo, formyl, cyano, amino, nitro, C₁-C₄ alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylamino, dialkylamino, haloalkyl, and haloalkenyl;

d) C₁-C₄ alkoxy, alkenoxy, alkynoxy, C₃-C₆ cycloalkyloxy, cycloalkenyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, dialkylamino, alkylcarbonylamino, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylcarbonyl, alkylcarbonyloxy, alkoxycarbonyl, (alkylthio)carbonyl, phenylcarbonylamino, phenylamino, each optionally substituted with halo;

each R₂ is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R₄ or halogen; and wherein, when Q is C, R₂ may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino;

wherein two R₂ groups may be combined to form a cyclo group with Q which is 1-methylcyclopropyl, 1-methylcyclopentyl, or 1-methylcyclohexyl;

R₃ is C₁-C₄ alkyl;

R₄ is C₁-C₄ alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino; and

R₇ is C₁-C₄ alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or R₄; or an agronomic salt thereof

145. (currently amended) The method according to claim 103 ~~claim 105~~, wherein

Z₁ and Z₂ are C and are part of an aromatic ring which is benzothiophene; and A is selected from --C(X)-amine wherein the amine is an unsubstituted, monosubstituted or disubstituted nonheterocyclic amino radical, --C(O)—SR₃, --NH--C(X)R₄, and --C(=NR₃)--XR₇;

B is --W_m --Q(R₂)₃ or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or R₄;

Q is C, Si, Ge, or Sn;

W is $--C(R_3)_p H_{(2-p)}$; or when Q is C, W is selected from $--C(R_3)_p H_{(2-p)}$, $--N(R_3)_m H_{(1-m)}$, $--S(O)_p$, and $--O--$;

X is O or S;

n is 0, 1, 2, or 3;

m is 0 or 1;

p is 0, 1, or 2;

each R is independently selected from

a) halo, formyl, cyano, amino, nitro, thiocyanato, isothiocyanato, trimethylsilyl, and hydroxy;

b) C₁-C₄ alkyl, alkenyl, alkynyl, C₃-C₆ cycloalkyl, and cycloalkenyl, each optionally substituted with halo, hydroxy, thio, amino, nitro, cyano, formyl, phenyl, C₁-C₄ alkoxy, alkylcarbonyl, alkylthio, alkylamino, dialkylamino, alkoxy carbonyl, (alkylthio)carbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfinyl, or alkylsulfonyl;

c) phenyl, furyl, thienyl, pyrrolyl, each optionally substituted with halo, formyl, cyano, amino, nitro, C₁-C₄ alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylamino, dialkylamino, haloalkyl, and haloalkenyl;

d) C₁-C₄ alkoxy, alkenoxy, alkynoxy, C₃-C₆ cycloalkyloxy, cycloalkenyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, dialkylamino, alkylcarbonylamino, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylcarbonyl, alkylcarbonyloxy, alkoxy carbonyl, (alkylthio)carbonyl, phenylcarbonylamino, phenylamino, each optionally substituted with halo;

each R₂ is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R₄ or halogen; and wherein, when Q is C, R₂ may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino;

wherein two R₂ groups may be combined to form a cyclo group with Q which is 1-methylcyclopropyl, 1-methylcyclopentyl, or 1-methylcyclohexyl;

R₃ is C₁-C₄ alkyl;

R₄ is C₁-C₄ alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino; and

R₇ is C₁-C₄ alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or R₄; or an agronomic salt thereof.

146. (currently amended) The method according to claim 103 claim 105,
wherein

Z_1 and Z_2 are C or N and are part of an aromatic ring which is furan; and

A is selected from --C(X)-amine wherein the amine is substituted with a first and a second amine substituent or with an alkylaminocarbonyl and a hydrogen, --C(O)—SR₃, --NH—C(X)R₄, and --C(=NR₃)—XR₇;

the first amine substituent is selected from the group consisting of C₁ - C₁₀ straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof optionally substituted with one or more halogen, hydroxy, alkoxy, alkylthio, nitrile, alkylsulfonate, haloalkylsulfonate, phenyl, a 5-membered heteroaryl, C₃ - C₆ cycloalkyl and C₅ - C₆ cycloalkylkenyl; phenyl optionally substituted with one or more C₁ - C₄ straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof, cycloalkyl, cycloalkenyl, haloalkyl, alkoxy and nitro; C₃ - C₆ cycloalkyl, C₅ - C₆ cycloalkenyl, alkoxy, alkenoxy, alkynoxy, dialkylamino, and alkylthio;

and the second amine substituent is selected from the group consisting of hydrogen; C₁ - C₆ straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof optionally substituted with one or more halogen, hydroxy, alkylcarbonyl, haloalkylcarbonyl, alkoxy carbonyl, and dialkylphosphonyl;

B is --W_m --Q(R₂)₃ or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or R₄;

Q is C, Si, Ge, or Sn;

W is --C(R₃)_p H_(2-p)--; or when Q is C, W is selected from --C(R₃)_p H_(2-p)--, --N(R₃)_m H_(1-m)--, --S(O)_p--, and --O--;

X is O or S;

n is 0, 1, or 2;

m is 0 or 1;

p is 0, 1, or 2;

each R is independently selected from

a) halo, formyl, cyano, amino, nitro, thiocyanato, isothiocyanato, trimethylsilyl, and hydroxy;

b) C₁-C₄ alkyl, alkenyl, alkynyl, C₃-C₆ cycloalkyl, and cycloalkenyl, each optionally substituted with halo, hydroxy, thio, amino, nitro, cyano, formyl, phenyl, C₁-C₄ alkoxy, alkylcarbonyl, alkylthio, alkylamino, dialkylamino, alkoxycarbonyl, (alkylthio)carbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfinyl, or alkylsulfonyl;

c) phenyl, furyl, thienyl, pyrrolyl, each optionally substituted with halo, formyl, cyano, amino, nitro, C₁-C₄ alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylamino, dialkylamino, haloalkyl, and haloalkenyl;

d) C₁-C₄ alkoxy, alkenoxy, alkynoxy, C₃-C₆ cycloalkyloxy, cycloalkenyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, dialkylamino, alkylcarbonylamino, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylcarbonyl, alkylcarbonyloxy, alkoxycarbonyl, (alkylthio)carbonyl, phenylcarbonylamino, phenylamino, each optionally substituted with halo;

wherein two R groups may be combined to form a fused ring;

each R₂ is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R₄ or halogen; and wherein, when Q is C, R₂ may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino;

wherein two R₂ groups may be combined to form a cyclo group with Q which is 1-methylcyclopropyl, 1-methylcyclopentyl, or 1-methylcyclohexyl;

R₃ is C₁-C₄ alkyl;

R₄ is C₁-C₄ alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino; and

R₇ is C₁-C₄ alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or R₄; or an agronomic salt thereof

147. (currently amended) The method according to claim 103 claim 105, wherein

Z₁ and Z₂ are C and are part of an aromatic ring which is furan; and

A is selected from --C(X)-amine wherein the amine is substituted with a first and a second amine substituent or with an alkylaminocarbonyl and a hydrogen, --C(O)—SR₃, --NH--C(X)R₄, and --C(=NR₃)—XR₇;

the first amine substituent is selected from the group consisting of C₁ - C₁₀ straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof optionally

substituted with one or more halogen, hydroxy, alkoxy, alkylthio, nitrile, alkylsulfonate, haloalkylsulfonate, phenyl, a 5-membered heteroaryl, C₃ - C₆ cycloalkyl and C₅ - C₆ cycloalkylkenyl; phenyl optionally substituted with one or more C₁ - C₄ straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof, cycloalkyl, cycloalkenyl, haloalkyl, alkoxy and nitro; C₃ - C₆ cycloalkyl, C₅ - C₆ cycloalkenyl, alkoxy, alkenoxy, alkynoxy, dialkylamino, and alkylthio;

and the second amine substituent is selected from the group consisting of hydrogen; C₁ - C₆ straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof optionally substituted with one or more halogen, hydroxy, alkylcarbonyl, haloalkylcarbonyl, alkoxycarbonyl, and dialkylphosphonyl;

B is --W_m--Q(R₂)₃ or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or R₄;

Q is C, Si, Ge, or Sn;

W is --C(R₃)_pH_(2-p)--; or when Q is C, W is selected from --C(R₃)_pH_(2-p)--, --N(R₃)_mH_(1-m)--, --S(O)_p--, and --O--;

X is O or S;

n is 0, 1, or 2;

m is 0 or 1;

p is 0, 1, or 2;

each R is independently selected from

a) halo, formyl, cyano, amino, nitro, thiocyanato, isothiocyanato, trimethylsilyl, and hydroxy;

b) C₁-C₄ alkyl, alkenyl, alkynyl, C₃-C₆ cycloalkyl, and cycloalkenyl, each optionally substituted with halo, hydroxy, thio, amino, nitro, cyano, formyl, phenyl, C₁-C₄ alkoxy, alkylcarbonyl, alkylthio, alkylamino, dialkylamino, alkoxycarbonyl, (alkylthio)carbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfinyl, or alkylsulfonyl;

c) phenyl, furyl, thienyl, pyrrolyl, each optionally substituted with halo, formyl, cyano, amino, nitro, C₁-C₄ alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylamino, dialkylamino, haloalkyl, and haloalkenyl;

d) C₁-C₄ alkoxy, alkenoxy, alkynoxy, C₃-C₆ cycloalkyloxy, cycloalkenyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, dialkylamino, alkylcarbonylamino,

aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylcarbonyl, alkylcarbonyloxy, alkoxycarbonyl, (alkylthio)carbonyl, phenylcarbonylamino, phenylamino, each optionally substituted with halo;

wherein two R groups may be combined to form a fused ring;

each R₂ is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R₄ or halogen; and wherein, when Q is C, R₂ may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino;

wherein two R₂ groups may be combined to form a cyclo group with Q which is 1-methylcyclopropyl, 1-methylcyclopentyl, or 1-methylcyclohexyl;

R₃ is C₁-C₄ alkyl;

R₄ is C₁-C₄ alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino; and

R₇ is C₁-C₄ alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or R₄; or an agronomic salt thereof.

148. (currently amended) The method according to claim 103 claim 105, wherein

Z₁ and Z₂ are C and are part of an aromatic ring which is furan; and

A is selected from --C(X)-amine wherein the amine is substituted with a first and a second amine substituent or with an alkylaminocarbonyl and a hydrogen, --C(O)—SR₃, --NH--C(X)R₄, and --C(=NR₃)--XR₇ ;

the first amine substituent is selected from the group consisting of C₁ - C₁₀ straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof optionally substituted with one or more halogen, hydroxy, alkoxy, alkylthio, nitrile, alkylsulfonate, haloalkylsulfonate, phenyl, a 5-membered heteroaryl, C₃ - C₆ cycloalkyl and C₅ - C₆ cycloalkylkenyl; phenyl optionally substituted with one or more C₁ - C₄ straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof, cycloalkyl, cycloalkenyl, haloalkyl, alkoxy and nitro; C₃ - C₆ cycloalkyl, C₅ - C₆ cycloalkenyl, alkoxy, alkenoxy, alkynoxy, dialkylamino, and alkylthio;

and the second amine substituent is selected from the group consisting of hydrogen; C₁ - C₆ straight or branched alkyl, alkenyl, or alkynyl groups or mixtures

thereof optionally substituted with one or more halogen, hydroxy, alkylcarbonyl, haloalkylcarbonyl, alkoxy carbonyl, and dialkylphosphonyl;

B is --W_m--Q(R₂)₃ or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or R₄;

Q is C, Si, Ge, or Sn;

W is --C(R₃)_pH_(2-p)--; or when Q is C, W is selected from --C(R₃)_pH_(2-p)--, --N(R₃)_mH_(1-m)--, --S(O)_p--, and --O--;

X is O or S;

n is 2;

m is 0 or 1;

p is 0, 1, or 2;

wherein the two R groups are combined to form a nonheterocyclic ring fused to said furan ring which is not benzofuran when A is --C(X)--amine, B is --W_m(Q)--(R₂)₃, and Q is C or Si, said R groups being selected from the group consisting of C₁ - C₄ alkyl, alkenyl, C₃ - C₆ cycloalkyl and cycloalkenyl, each optionally substituted with hydroxy, thio, phenyl, C₁ - C₄ alkoxy, alkylthio, alkylsulfinyl, or alkylsulfonyl; and

each R₂ is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R₄ or halogen; and wherein, when Q is C, R₂ may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino; wherein further when Q is C, then two R₂ groups may be combined to form a cyclo group with Q;

R₃ is C₁-C₄ alkyl;

R₄ is C₁-C₄ alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino; and

R₇ is C₁-C₄ alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or R₄; or an agronomic salt thereof.

149. (currently amended) The method according to claim 103 ~~claim 105~~, wherein

Z₁ and Z₂ are C and are part of an aromatic ring which is pyridine; and

A is selected from the group consisting of --C(O)—SR₃, --NH--C(X)R₄, and --C(=NR₃)--XR₇ and --C(X)-amine wherein the amine is substituted with

alkylaminocarbonyl and a hydrogen or wherein the amine has a first and a second amine substituent;

the first amine substituent is selected from the group consisting of C₁ - C₁₀ straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof optionally substituted with one or more halogen, hydroxy, alkoxy, alkylthio, nitrile, alkylsulfonate, haloalkylsulfonate, phenyl, a 5-membered heteroaryl, C₃ - C₆ cycloalkyl and C₅ - C₆ cycloalkylkenyl; phenyl optionally substituted with one or more C₁ - C₄ straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof, cycloalkyl, cycloalkenyl, haloalkyl, alkoxy and nitro; C₃ - C₆ cycloalkyl, C₅ - C₆ cycloalkenyl, alkoxy, alkenoxy, alkynoxy, dialkylamino, and alkylthio;

and the second amine substituent is selected from the group consisting of hydrogen; C₁ - C₆ straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof optionally substituted with one or more halogen, hydroxy, alkylcarbonyl, haloalkylcarbonyl, alkoxycarbonyl, and dialkylphosphonyl;

B is --W_m--Q(R₂)₃ or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or R₄;

Q is C, Si, Ge, or Sn;

W is --C(R₃)_pH_(2-p)--; or when Q is C, W is selected from --C(R₃)_pH_(2-p)--, --N(R₃)_mH_(1-m)--, --S(O)_p--, and --O--;

X is O or S;

n is 0, 1, or 2;

m is 0 or 1;

p is 0, 1, or 2;

each R is independently selected from

a) halo, formyl, cyano, amino, nitro, thiocyanato, isothiocyanato, trimethylsilyl, and hydroxy;

b) C₁-C₄ alkyl, alkenyl, alkynyl, C₃-C₆ cycloalkyl, and cycloalkenyl, each optionally substituted with halo, hydroxy, thio, amino, nitro, cyano, formyl, phenyl, C₁-C₄ alkoxy, alkylcarbonyl, alkylthio, alkylamino, dialkylamino, alkoxycarbonyl, (alkylthio)carbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfinyl, or alkylsulfonyl;

c) phenyl, furyl, thienyl, pyrrolyl, each optionally substituted with halo, formyl, cyano, amino, nitro, C₁-C₄ alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylamino, dialkylamino, haloalkyl, and haloalkenyl;

d) C₁-C₄ alkoxy, alkenoxy, alkynoxy, C₃-C₆ cycloalkyloxy, cycloalkenyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, dialkylamino, alkylcarbonylamino, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylcarbonyl, alkylcarbonyloxy, alkoxycarbonyl, (alkylthio)carbonyl, phenylcarbonylamino, phenylamino, each optionally substituted with halo;

each R₂ is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R₄ or halogen; and wherein, when Q is C, R₂ may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino; or wherein two R₂ groups may be combined to form a cyclo group with Q which is 1-methylcyclopropyl, 1-methylcyclopentyl, or 1-methylcyclohexyl;

R₃ is C₁-C₄ alkyl;

R₄ is C₁-C₄ alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino; and

R₇ is C₁-C₄ alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or R₄; or an agronomic salt thereof.

150. (currently amended) The method according to claim 103 ~~claim 105~~, wherein

Z₁ and Z₂ are C and are part of an aromatic ring which is benzene; and

A is selected from the group consisting of --C(X)-amine wherein the amine is substituted with a first and a second amine substituent or with an alkylaminocarbonyl and a hydrogen; --C(O)—SR₃, --NH--C(X)R₄, and --C(=NR₃)--XR₇;

the first amine substituent is selected from the group consisting of C₁ - C₁₀ straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof optionally substituted with one or more halogen, hydroxy, alkoxy, alkylthio, nitrile, alkylsulfonate, haloalkylsulfonate, phenyl, C₃ - C₆ cycloalkyl and C₅ - C₆ cycloalkylkenyl; phenyl optionally substituted with one or more C₁ - C₄ straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof, cycloalkyl, cycloalkenyl, haloalkyl, alkoxy and nitro; C₃ - C₆ cycloalkyl, C₅ - C₆ cycloalkenyl, alkoxy, alkenoxy, alkynoxy, dialkylamino, and alkylthio;

and the second amine substituent is selected from the group consisting of hydrogen; C₁ - C₆ straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof optionally substituted with one or more halogen, hydroxy, alkylcarbonyl, haloalkylcarbonyl, alkoxy carbonyl, and dialkylphosphonyl;

B is --W_m--Q(R₂)₃ or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or R₄;

Q is Si, Ge, or Sn;

W is --C(R₃)_pH_(2-p)--;

X is O or S;

n is 0, 1, 2 or 3;

m is 0 or 1;

p is 0, 1, or 2;

each R is independently selected from

a) halo, formyl, cyano, amino, nitro, thiocyanato, isothiocyanato, trimethylsilyl, and hydroxy;

b) C₁-C₄ alkyl, alkenyl, alkynyl, C₃-C₆ cycloalkyl, and cycloalkenyl, each optionally substituted with halo, hydroxy, thio, amino, nitro, cyano, formyl, phenyl, C₁-C₄ alkoxy, alkylcarbonyl, alkylthio, alkylamino, dialkylamino, alkoxy carbonyl, (alkylthio)carbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfinyl, or alkylsulfonyl;

c) phenyl, furyl, thienyl, pyrrolyl, each optionally substituted with halo, formyl, cyano, amino, nitro, C₁-C₄ alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylamino, dialkylamino, haloalkyl, and haloalkenyl;

d) C₁-C₄ alkoxy, alkenoxy, alkynoxy, C₃-C₆ cycloalkyloxy, cycloalkenyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, dialkylamino, alkylcarbonylamino, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylcarbonyl, alkylcarbonyloxy, alkoxy carbonyl, (alkylthio)carbonyl, phenylcarbonylamino, phenylamino, each optionally substituted with halo;

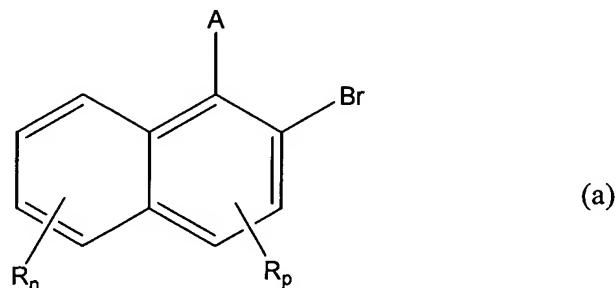
each R₂ is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R₄ or halogen;

R₃ is C₁-C₄ alkyl;

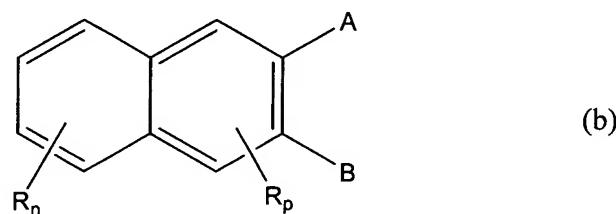
R₄ is C₁-C₄ alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino; and

R_7 is C₁-C₄ alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or R_4 ; or an agronomic salt thereof.

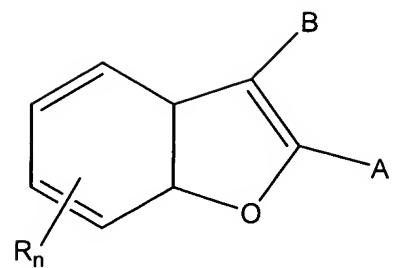
151. (currently amended) A method of increasing the vigor and/or the yield of an agronomic plant comprising treating the plant or its propagation material with a composition which comprises an effective amount of a fungicide having the formula ~~The method according to claim 103, wherein the fungicide comprises a compound having the formula:~~



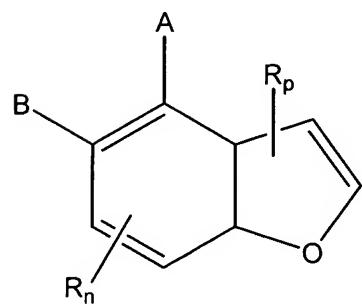
(a)



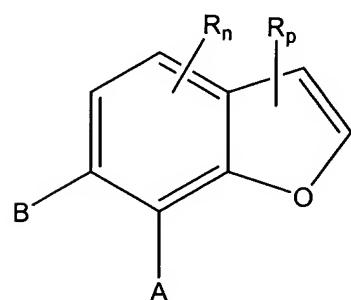
(b)



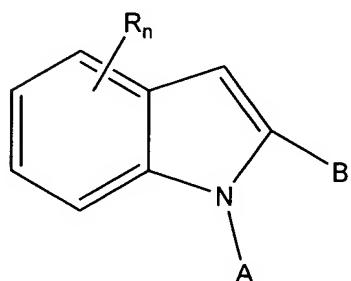
(c)



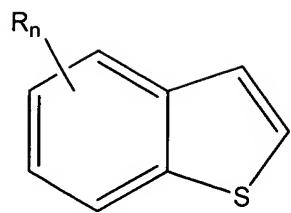
(d)



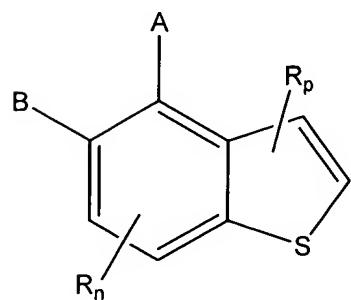
(e)



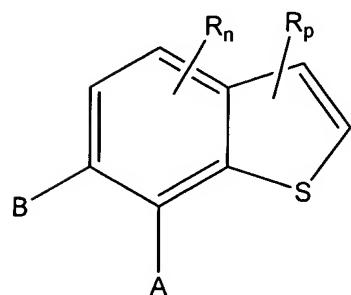
(f)



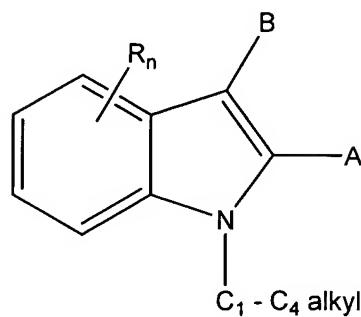
(g)



(h)



(i)



(j)

where A is $--C(X)$ -amine; B is $--W_m --Q(R_2)_3$; and A can be B when B is A except when the formula is f), then Q cannot be Si;

Q is C or Si;

W is --NH--, --O-- or NCH₃--;

X is O or S;

m is 0 or 1, provided that m is 0 when Q is Si;

n is 0, 1, 2, or 3;

p is 0, 1 or 2, and n plus p is equal to or less than 3;

each R is independently selected from

a) halo, formyl, cyano, amino, nitro, thiocyanato, isothiocyanato, trimethylsilyl, and hydroxy;

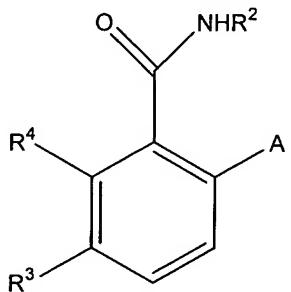
b) C₁–C₄ alkyl, alkenyl, alkynyl, C₃–C₆ cycloalkyl, and cycloalkenyl, each optionally substituted with halo, hydroxy, thio, amino, nitro, cyano, formyl, phenyl, C₁–C₄ alkoxy, alkylcarbonyl, alkylthio, alkylamino, dialkylamino, alkoxy carbonyl, (alkylthio)carbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfinyl, or alkylsulfonyl;

c) phenyl, furyl, thienyl, pyrrolyl, each optionally substituted with halo, formyl, cyano, amino, nitro, C₁–C₄ alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylamino, dialkylamino, haloalkyl, and haloalkenyl;

d) C₁–C₄ alkoxy, alkenoxy, alkynoxy, C₃–C₆ cycloalkyloxy, cycloalkenyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, dialkylamino, alkylcarbonylamino, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylcarbonyl, alkylcarbonyloxy, alkoxy carbonyl, (alkylthio)carbonyl, phenylcarbonylamino, phenylamino, each optionally substituted with halo; each R₂ is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R₄ or halogen; and wherein, when Q is C, R₂ may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino; wherein two R₂ groups may be combined to form a cyclo group with Q; R₄ is C₁–C₄ alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino;

or an agronomic salt thereof, wherein the fungicide has no significant activity against fungal plant pathogens for such agronomic plant, wherein the plant or its propagation material possesses a transgenic event providing the plant with resistance to a herbicide and the treatment comprises foliar application of said herbicide.

152. (currently amended) A method of increasing the vigor and/or the yield of an agronomic plant comprising treating the plant or its propagation material with a composition which comprises an effective amount of a fungicide having the formula ~~The method according to claim 103, wherein the fungicide comprises a compound having the formula:~~



wherein R² is ethyl, iso-propyl, propyl or allyl;

A is N(CH₃)_{1-n} H_n R⁵ or OR⁶ wherein n is 0 or 1, R⁵ is (CH₃)_m (CH₃ CH₂)_{3-m} C, 1-methyl-1-cyclopentyl, 1-methyl-1-cyclohexyl or 2,3-dimethyl-2-butyl wherein m is 0, 1, 2 or 3 and R⁶ is independently R⁵, or 2,3,3-trimethyl-2-butyl;

R³ is H or independently R⁴; and

R⁴ is halo or CH₃;

with the proviso that when A is N(CH₃)_{1-n} H_n R⁵, if R³ is H and R⁵ is 1-methyl-1-cyclohexyl or (CH₃)_m (CH₂ CH₃)_{3-m} C, where m is 0 or 3, or if R³ is halo and R² is (CH₃)_m (CH₃ CH₂)_{3-m} C, where m is 3, then R² cannot be ethyl;

and with the proviso that when A is OR⁶ then m is equal to or less than 2, and if R³ is H or halo and R² is ethyl or isopropyl, then R⁶ is (CH₃)_M (CH₃ CH₂)_{3-M} C where m is 1;

or an agronomic salt thereof, wherein the fungicide has no significant activity against fungal plant pathogens for such agronomic plant, wherein the plant or its propagation material possesses a transgenic event providing the plant with resistance to a herbicide and the treatment comprises foliar application of said herbicide.

153. (previously presented) The method according to claim 103, wherein the agronomic plant is selected from the group consisting of corn, cereals, barley, rye, rice, vegetables, clovers, legumes, beans, peas, alfalfa, sugar cane, sugar beets, tobacco, cotton, rapeseed (canola), sunflower, safflower, and sorghum.

154. (previously presented) The method according to claim 103, wherein the agronomic plant is selected from the group consisting of *Pisum spp.*, *Medicago spp.*, *Arachis spp.*, *Glycine spp.*, *Vicia spp.*, *Vigna spp.*, trefoil, clovers and *Phaseolus spp.*

155. (previously presented) The method according to claim 103, wherein the agronomic plant is a soybean plant.

156. (previously presented) The method according to claim 103, wherein the treatment comprises treatment of a seed, wherein the seed is treated with an amount of the composition sufficient to include the fungicide in an amount that is within the range of about 0.1 gm/100 kg of seed to about 500 gm/100 kg of seed.

157. (previously presented) The method according to claim 156, wherein the seed is treated with an amount of the composition sufficient to include the fungicide in an amount that is within the range of about 10 gm/100 kg of seed to about 100 gm/100 kg of seed.

158. (previously presented) The method according to claim 156, wherein the seed is treated with an amount of the composition sufficient to include the fungicide in an amount that is within the range of about 20 gm/100 kg of seed to about 50 gm/100 kg of seed.